

BRIDGE INSPECTION REPORT

WO CC WE PD
BAM 0 0 0 2

Status: Released

Ver Date 10/14/2008

Printed on: 10/14/2008

Agency: Washington State

Program Mgr: Harvey L. Coffman

Bridge No. 9/134

Page 1 of 3

Structure Type CA

Bridge Name PILCHUCK CR

Route 00009

Intersecting PILCHUCK CR

Structure ID 000000EX

MilePost 34.85

Location 5.4 N JCT SR 530

Inspector's Signature GAS

IDent# G0709

Co-Inspector's Signature

CRT

| | | | | | | | | | | Inspections Performed: | | | | |
|---|---|------------------------|---|---|-------------------------|------|----|----------------------|--|--------------------------------|----|-----|-----------|------------|
| | | | | | | | | | | IT | NT | HRS | Date | Rep Type |
| 4 | 5 | Structural Adqcy (657) | N | | Pier/Abut/Protect (679) | 1916 | | Year Built (332) | | | | | | |
| 2 | | Deck Geometry (658) | 2 | | Scour (680) | 0 | | Year Rebuilt (336) | | Y | 24 | 1.0 | 8/28/2008 | Routine |
| 9 | | Underclearance (659) | 8 | | Approach Rdwy (681) | F 61 | | Oper Rating (551) | | | | | | Fract Crit |
| 5 | | Operating Level (660) | 7 | 9 | Retaining Walls (682) | F 36 | | Inv Rating (554) | | | | | | Underwater |
| 3 | | Alignment Adqcy (661) | 9 | | Pier Protection (683) | A | | Open Close (293) | | | | | | Special |
| 6 | | Waterway Adqcy (662) | 1 | | Bridge Rails (684) | 9999 | | Vert Over Deck (360) | | | | | | Interim |
| 9 | | Deck Overall (663) | 0 | 1 | Transition (685) | 0000 | | Vert Under (374) | | | | | | Equipment |
| 9 | | Drains Condition (664) | 1 | | Guardrails (686) | N | | Vert Und Code (374) | | | | | | Damage |
| 5 | | Superstructure (671) | 1 | | Terminals (687) | 0.00 | | Asphalt Depth | | | | | | Safety |
| 1 | | Number Utilities (675) | N | | Revise Rating (688) | 55 | 25 | Speed Limit | | | | | | Short Span |
| 4 | 5 | Substructure (676) | | | Photos Flag (691) | | | | | | | | | |
| 8 | | Chan/Protection (677) | N | | Soundings Flag (693) | | | | | | | | | |
| 9 | | Culvert (678) | | | Measure Clearance (694) | | | | | | | | | |
| | | | | | | | | | | Total: 1.0 | | | | |
| | | | | | | | | | | Suff Rating: 41.09 SD 59.87 FO | | | | |

BMS Elements 145 to 800

| Element | Element Description | Total | Units | Env | State 1 | State 2 | State 3 | State 4 |
|---------|-------------------------------------|-------|-------|-----|---------|---------|---------|---------|
| 145 | Earth Filled Concrete Arch | 120 | LF | | 40 | 15 | 65 | 0 |
| 212 | Concrete Submerged Pier Wall | 22 | LF | | 17 | 0 | 5 | 0 |
| 215 | Concrete Abutment | 89 | LF | | 85 | 0 | 4 | 0 |
| 220 | Concrete Submerged Pile Cap/Footing | 3 | EA | | 2 | 0 | 1 | 0 |
| 330 | Metal Bridge Railing | 240 | LF | | 236 | 4 | 0 | 0 |
| 361 | Scour | 3 | EA | | 0 | 0 | 3 | 0 |
| 800 | Asphaltic Concrete (AC) Overlay | 2,016 | SF | | 1,999 | 3 | 14 | 0 |

Notes 0 to 800

0 Bridge oriented south to north in accordance with route direction.

145 Earth Filled Concrete Arch in the bottom has many scattered areas of poor consolidation with short transverse and longitudinal hairline leaching cracks. Transverse and longitudinal construction joints are openly cracked with heavy leaching and rust staining. Small length of exposed rusty ties are visible in areas. Spring lines at piers have distinct full width transverse hairline cracks that are leaching heavy and are rust stained. See photo #17.
East and west faces of arch have many small bottom edge spalls up to 2" deep and areas of heavy scaling with most severe scaling on the west side. Top west edge of arch has many edge spalls below the curb over Span 1. See photos #18, #19 and #20.
The west corners of the arch at Piers 1 and 3 are heavily edge spalled with the largest being at Pier 3 up to 24" across by 7" deep and extending into the wingwall with horizontal and diagonal hairline cracking. See photo #9.

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Bridge No. 9/134 Page 2 of 3 Structure Type CA
 Bridge Name PILCHUCK CR Route 00009 Intersecting PILCHUCK CR
 Structure ID 000000FX MilePost 34.85 Location 5.4 N JCT SR 530

Notes 0 to 800

- 212 Concrete Submerged Pier Wall at Pier 2 has several scattered hairline vertical and horizontal leaching cracks with large areas of poor consolidation. The east end is heavily spalled up to 1" deep around the bottom with approximately 4 sq. ft. of delamination. See photo #16.
- 215 Concrete Abutment quantities include 12 ft. wing walls at each corner. Abutment and wing walls have areas of heavy moss growth and are abraided at the high water line with several hairline cracks, areas of poor consolidation and scale. The northwest corner is spalled out over a 2 ft. length and up to 8" deep at the top of the footing. See photo #10.
- 220 Concrete Submerged Footings are exposed at all piers and have scattered minor top edge spalls with areas of scale. Pier 1 footing is cracked open to 1/16" across the top southwest corner and down the vertical face.
- 330 Metal Bridge Railing is thrie beam mounted to steel posts with a pressure treated timber curb. East rail over Span 2 has minor traffic damage with the top flange bent down approximately 2" over 4 ft.
- 361 Pilchuck Creek flows east to west under both spans with main channel below Span 1 bearing against Pier 1 and southeast wing wall on 8/28/2008. Tops of footings are exposed at all piers, but have new riprap in place in 2008. See "Scour Repair Plan" attached to files tab. At Pier 1, southeast corner, previously noted undermining up to 1 ft. deep and extending up to 18" back under abutment and wing wall footing is no longer visible due to new riprap. Minor debris has accumulated at the east end of Pier 2. See photos #11, #12, #13, #14, #15 and #16.
- 661 Alignment Adequacy for this posted single lane bridge is reduced by low visibility approach from the north and a speed reduced blind curve from the south.
- 664 Drains are permanently blocked.
- 671 Superstructure coded "5" due to deterioration of the Luten arch. See element note 145.
- 675 Utility consists of one 4" diameter steel pipe suspended from outriggers on the west side of the bridge.
- 676 Substructure coded "5" based on previously noted exposure and undermining at the Pier 1 footing. See BMS element 361.
- 677 Channels are heavily vegetated with new riprap below bridge. See photos #21 and #22.
- 680 Pier 2 is scour critical if estimated pile tip elevations are accurate. Some channel degradation has occurred.
- 681 Approach Roadways are smooth. The southeast shoulder has ongoing erosion that has been mitigated using 4" quarry spalls and built up ACP.
- 693 Soundings taken 8/28/2008. See "Scour Field Evaluation" attached to files tab.
- 800 ACP is not considered an overlay, but is a pavement in this case, and is recorded for purposes of tracking deterioration across the bridge. Pavement has longitudinal cracking with areas of raveling scattered throughout. There are two areas, 10 sq. ft. over Span 1 and 4 sq. ft. over Span 2 that are raveling with up to 1" of settlement and potholing.

Repairs to

| Repair No | Pr | R | Repair Description | Date Noted | Verified |
|-----------|----|---|--------------------|------------|----------|
|-----------|----|---|--------------------|------------|----------|

Inspections Performed and Resources Required

| Report Type | Date | IT | Frg | Hrs | Insp | CertNo | Coinsp | Note |
|-------------------------|-----------|-------|------|------|------|--|--------|------|
| Routine | 8/28/2008 | Y | 24 | 1.0 | GAS | G0709 | CRT | |
| Resources | Use | Hours | Min | Req | Max | Notes | | |
| Scheduling Restrictions | LWTR | | LWTR | LWTR | LWTR | Inspection of Pier 1 footing requires low water. | | |

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Sticky Notes

| Creator | Created | Table Reference | Notes |
|---------|---------|-----------------|--------------------------------------|
| | | | (No sticky notes for this structure) |